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ALOE DABENORISANA VAN JAARSVELD: A NEW ALOE FROM THE NORTH-WEST CAPE (R.S.A.)

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Abstract

A new *Aloe* species (Liliaceae), allied to *Aloe meyeri*, is described from the North-Western Cape. *Aloe dabenorisana* falls between the series Mitriformes and series Macrifoliae.

Uittreksel

ALOE DABENORISANA VAN JAARSVELD: 'N NUWE ALOE VANAF NOORDWES-KAAP (R.S.A.)

'n Nuwe *Aloe*-soort (Liliaceae) verwant aan *Aloe meyeri*, vanaf Noordwes-Kaap word beskryf. *Aloe dabenorisana* val tussen die reeks Mitriformes en die reeks Macrifoliae.

Aloe dabenorisana E. J. van Jaarsveld, sp. nov.: a *A. meyeri* van Jaarsveld differt, multo maiore acaulescenti planta, crescente nitidis rotundatisque fasciculis, foliis distincte recurvis, inflorescentia 2–4 ramosa atque racemis 120 mm longis et 70–90 mm latis.

Type: South Africa: Cape Province—2818 (Warmbad): Dabenorisberg, upper south-western peaks (-DC), *van Jaarsveld and Kritzinger 6426* (NBG, holotype).

Plants hanging from vertical south and south-west facing quartz cliffs, acaulescent or short-stemmed, solitary or more often occurring in dense, neat rounded clusters up to 800 mm in diameter. *Stems* up to 300 mm long and 27 mm in diameter, apical part densely foliated. *Rosettes* up to 450 mm in diameter, hanging downwards or ascending, old dry leaves persistent. *Leaves* narrowly lanceolate acuminate up to 240 mm long and 50 mm in diameter, recurved and sometimes deflexed; apices of lower leaves touching the rock face, lower surface convex but keeled towards the apex; upper surface canaliculate, green tinged with red, becoming more so during severe drought. When green, leaves obscurely striate, when red the striations scarcely visible. Margins armed with small white deltoid teeth 2 × 1 mm, ± 1[illegible] mm apart. Leaf sap drying orange-yellow. When young, leaves are arranged in

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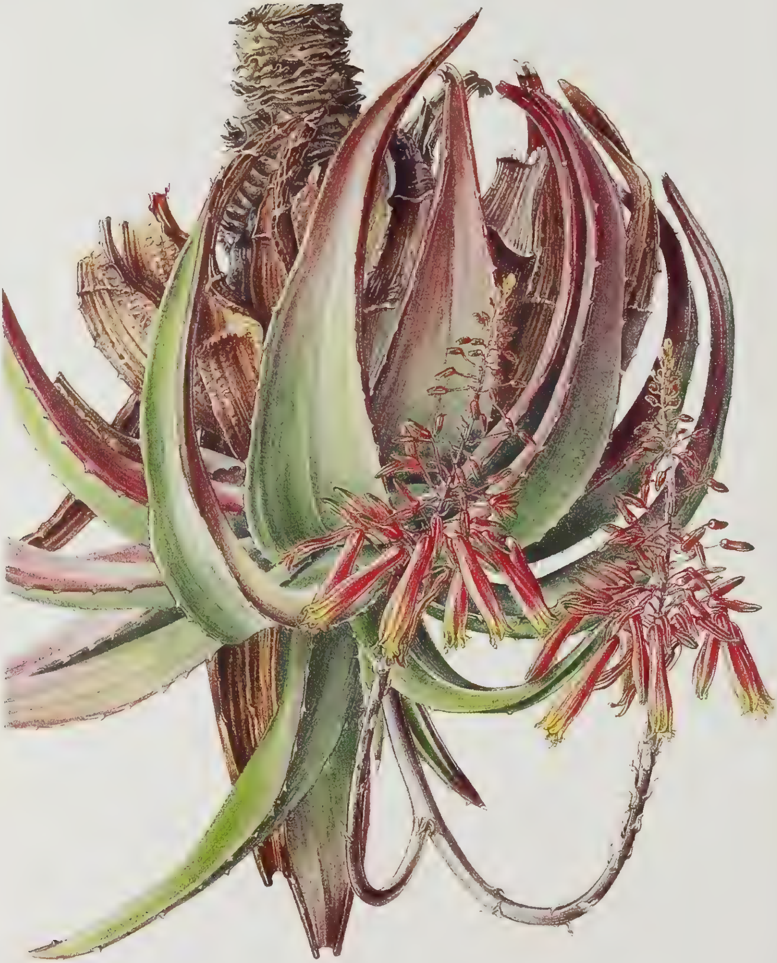

FIG. 1
Aloe dabenorisana van Jaarsveld, sp. nov.

4–5 vertical ranks, but later becoming spirally twisted. *Inflorescence* 250–302 mm long, arcuate and ascending 2–4 branched from the middle or rarely simple. Peduncle flattened, convex up to 12 mm in diameter with few scarious, sterile deltoid acute bracts, 3–4 mm broad. Racemes conical, 120 mm long and 70–90 mm broad. Pedicles 20–28 mm long, shorter upwards. Bracts lanceolate acuminate, thin scarious, 7 mm long and 2 mm broad,

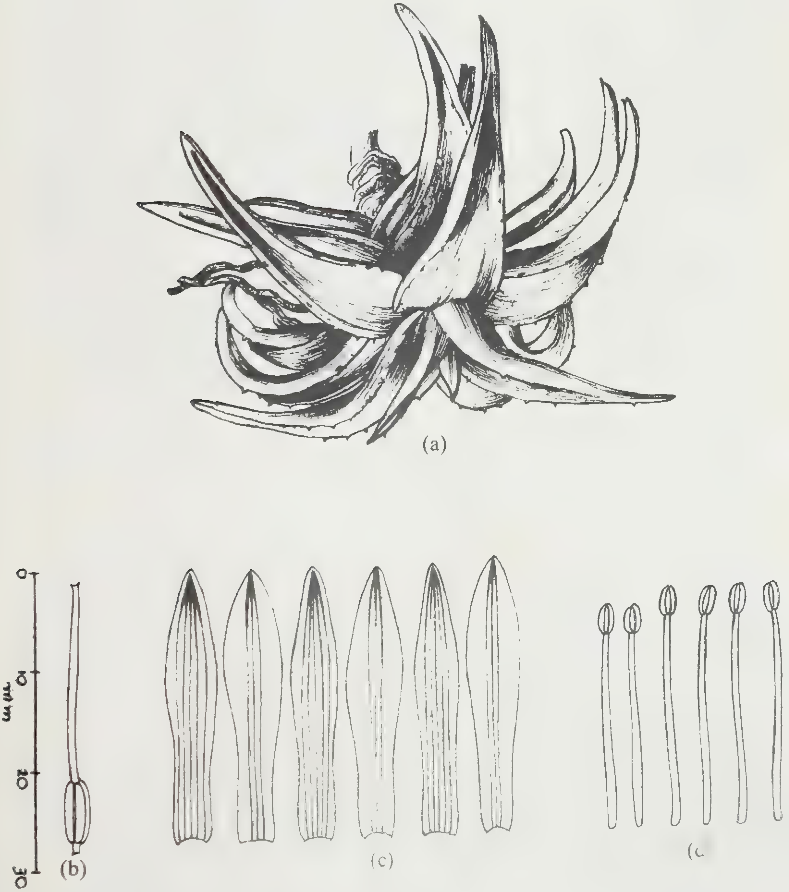

FIG. 2
(a) A juvenile plant. Note that the leaves are in five vertical ranks; (b) gynoecium; (c) segments; (d) filaments.

gradually shortening towards apex, the buds orange, green-tipped, horizontally spreading to subpendulous. *Perianth* 25 mm long, cylindrical, subclavate slightly curved, obtuse or subacute, 5 mm in diameter, proximally widening to 8 mm near mouth, outer segments free, yellowish with a red keel. Filaments yellow, the three inner lengthening before the three outer, flattened at base, up to 3 mm exserted. *Ovary* green, 7 mm long and 2–3 mm broad.

Flowering period: August to November but sporadically throughout the year.

DISTRIBUTION

A. dabenorisana is as yet only known from the Dabenoris mountain range, which consists of hard quartz and reaches an altitude of 1 078 m at the highest peak. The mountain range is situated in Northern Bushmanland.

HABITAT

The plants occur on steep vertical south and south-west facing upper slopes in crevices of quartz rock at an altitude of 900–1 000 m. The plants are locally scattered and not very common.

DISCUSSION

Aloe dabenorisana is most closely related to *Aloe meyeri* van Jaarsveld. It falls between the series Mitriformes (Reynolds, 1950) and series Macrifoliae which links the two groups together. This new aloe is at once distinguished from *Aloe meyeri* by being a much larger acaulescent plant. The leaves are distinctly recurved, canaliculate and the inflorescences are branched. This species in the young stage shares with *Aloe pearsonii* (series Macrifoliae) the characteristic of having the leaves arranged in 4–5 vertical ranks. In older, larger plants the leaves become spirally twisted. It is also interesting to note that *A. dabenorisana* occurs in Bushmanland which receives summer rainfall. However, the vegetation of the upper quartz rocks in the Dabenorisberg indicates that plants also receive winter rain as it is near the boundary between the two rainfall zones.

Aloe dabenorisana was discovered by A. R. Mitchell, a succulent expert from Britain in the course of his survey on the genus *Conophytum*. While climbing the Dabenorisberg on 27 July 1980, in search of conophytums, he came across this unique aloe and at a later stage brought it to the attention of the author.

Earlier this year, Mr. Kobus Kritzinger (Law Enforcement Officer of the Dept. of Nature and Environmental Conservation) kindly took the author to the Dabenorisberg and assisted in collecting the type material. The author

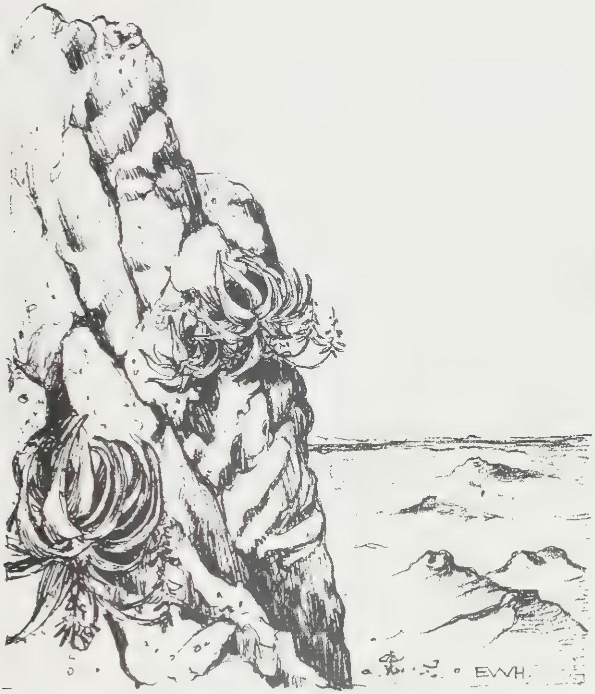

FIG. 3
Aloe dabenorisana van Jaarsveld, sp. nov. Habitat.

and Mr. Kritzinger had great difficulty in reaching the plants due to the inaccessibility of the vertical rock face where these plants occur. However, they managed to collect one plant in flower from which this description was prepared.

ACKNOWLEDGMENTS

1. Mr. Kobus Kritzinger (Law Enforcement Officer at Springbok of the Dept. of Nature and Environmental Conservation), who very kindly accompanied the author and assisted in collecting the type material and also later together with Mr. van der Westhuizen collected a flowering specimen for illustration.
2. Mr. Anthony Mitchell who discovered this species and supplied the author with valuable information.

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4. Miss Bosman and Dr. Rourke are thanked for editing the manuscript.
5. Mr. Norval Geldenhuys is thanked for the preparation of the Latin diagnosis.

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